

JAN - 8 2001

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of

FWCC Request for Declaratory Ruling)	
On Partial-Band Licensing of Earth)	IB Docket No. <u>00-203</u>
Stations in the Fixed-Satellite Service)	RM-9649
That Share Terrestrial Spectrum)	
)	
FWCC Petition for Rulemaking to Set)	
Loading Standards for Earth Stations)	
In the Fixed-Satellite Service that)	
Share Terrestrial Spectrum)	
)	
Onsat Petition for Declaratory Order that)	
Blanket Licensing Pursuant to)	SAT-PDR-19990910-00091
Rule 25.115(c) is available for)	
Very Small Aperture Terminal Satellite)	
Network Operations at C-Band)	
)	
Onsat Petition for Waiver of)	
Rule 25.212(d) To the Extent Necessary)	
to Permit Routine Licensing of 3.7 Meter)	
Transmit and Receive Stations at C-Band)	
)	
<i>Ex parte</i> Letter Concerning Deployment)	
Of Geostationary Orbit FSS Earth Stations)	
in the Shared Portion of the Ka-band)	

COMMENTS OF THE NATIONAL CABLE TELEVISION ASSOCIATION

The National Cable Television Association ("NCTA") hereby submits its comments in the above-captioned proceeding. NCTA is the principal trade association of the cable television industry in the United States. Its members include cable operators serving more than 90% of the nation's cable television subscribers, as well as more than 200 cable programming networks and

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services. NCTA's members also include suppliers of equipment and services to the cable industry.

INTRODUCTION

NCTA's members – both cable operators and programmers – would be significantly harmed by the Commission's proposed changes to the rules governing the coordination and shared use of certain radio spectrum bands by Fixed-Satellite Service ("FSS") earth stations and terrestrial Fixed Service ("FS") operations. And so would members of the public who subscribe to and enjoy the reliable availability of the broad range of programming services provided by their local cable systems.

Cable operators and programmers make ubiquitous use of FSS earth stations. Programmers use earth stations to transmit their programming to satellite transponders – which, in turn, transmit the programming back to the receive-only earth stations of cable operators. Programmers also use earth stations to receive some of the material to be included in their uplinked programming.

The satellites used by programmers and operators to send and receive cable programming are located throughout the entire allocated satellite band, at all allocated azimuths and elevations. Moreover, programmers have recurring needs, from time to time, to switch the transponders that they use to transmit their network programming to cable systems. And cable operators have recurring needs, on an ongoing basis, to reorient their receive-only earth stations, not only when programmers switch transponders but also when operators choose to provide special event programming.

For all these reasons, among others, FSS earth stations have generally been licensed for the entire allocated geostationary satellite band, for all azimuths and at all elevations.¹ This sometimes makes it difficult for FS services, whose licenses are restricted to certain maximum amounts of bandwidth within the frequencies allocated for such services, to find and obtain new available spectrum in the bands that they share with FSS services. But FSS and FS license applicants must coordinate their proposed frequency usage in the shared bands. This coordination process – which is handled in a technically sophisticated and precise manner, pursuant to the Commission’s rules² – ensures that applicants will be able to identify any frequencies that can be used without interfering with existing licensees’ current or reasonably anticipated use. Cable operators and programmers have used this process for years to negotiate agreements with competing spectrum users, without significant problems or complaints.

In this proceeding, the Commission proposes certain rule changes that would impose new requirements and restrictions on the coordination process. While the proposed rules are meant to promote more efficient use of the spectrum by making more “unused” spectrum available to FS licensees, they are likely to have just the opposite effect.

In particular, by requiring FSS licensees who deny requests by FS applicants for coordination to demonstrate recent, current or imminent “use” of the requested spectrum, the Commission would, first of all, turn coordination into a burdensome adversarial process. Moreover, the presumption on which the proposal is based – that if an FSS licensee has not recently used some of its licensed spectrum and cannot demonstrate imminent use, it does not need to have that spectrum protected against interference – is simply wrong. It is precisely

¹ See, e.g., *Establishment of Domestic Communications-Satellite Facilities by Nongovernmental Entities*, Report and Order, 22 F.C.C. 2d 86, 102 (1970). See also Notice of Proposed Rulemaking (“Notice”), ¶ 19.

² See 47 C.F.R § 25.203(c).

because cable operators and programmers and other FSS licensees can never know when they may need to use a particular satellite transponder that they are licensed to use the entire satellite band. Denying them the flexibility to use certain transponders on certain satellites without interference just because they have not recently used such satellites would disrupt and diminish the ability of cable operators and programmers to provide the nation's 70 million cable households with the seamless, interference-free array of programming that they rely upon and enjoy.

In addition, the Commission's proposal to require earth station licensees that accept a certain level of interference and certain interference mitigation techniques in their initial coordinations to accept the same levels and techniques from subsequent applicants would not facilitate the coordination process and would not promote the efficient spectrum sharing. To the contrary, it would only serve to discourage licensees from agreeing, once and for all, to what might be acceptable on a case-by-case basis.

I. CABLE OPERATORS AND PROGRAMMERS NEED THE FLEXIBILITY TO CONTINUE TO USE EARTH STATIONS TO TRANSMIT AND RECEIVE PROGRAMMING ACROSS THE ALLOCATED SATELLITE BAND AT ALL AZIMUTHS AND ELEVATIONS.

Neither cable operators nor cable programmers can count on pointing each of their earth stations at a single satellite transponder at a single frequency for an indefinite, sustained period of time. Even where earth stations are dedicated to the transmission or receipt of a single 24-hour-a-day programming service, programmers routinely are required to switch from one satellite or frequency to another – although when and where such switches will occur cannot be predicted.

Transponders do fail from time to time – sometimes for a brief period of time, sometimes permanently. In either case, program networks that use such transponders must immediately

switch to a different transponder, pursuant to whatever contractual arrangements they have made with satellite capacity suppliers. This typically requires a change in frequency and in orientation of the earth stations used to uplink the programming. Similar switches may be required as programmers' contracts with satellite capacity suppliers expire. And whenever such switches are made, cable systems that carry the program networks must reorient their earth stations to the new transponders at the new satellites.

In any event, many earth stations used by programmers and cable operators are *not* dedicated to transmission or receipt of a single program network. Some of the programming transmitted by cable program networks consists in whole or in part of material that the programmers must themselves first receive by satellite from various sources, via whatever satellite transponder those sources may use to transmit the material. Sports and news networks often use such backhaul satellite transmissions to obtain live material from remote locations, which they then uplink to the transponder that is used to retransmit their networks to cable systems.

In addition to the cable networks that cable systems carry on a 24-hour-a-day basis, cable systems also sometimes carry one-time special event programs, which are delivered by satellite from a transponder procured by the event programmer. To receive such programming, cable systems must be able to reorient their earth stations to the location and frequency of the transmitting transponder.

All these uses require cable operators and programmers to be able to switch their transmitting or receiving earth stations to new locations and new frequencies with relatively little advance notice – and sometimes on a moment's notice. There is no way to know which particular locations and frequencies will ultimately be used by a particular licensed earth station,

particularly where breaking news leaves virtually no time for advance planning. And there is absolutely no reason to expect, at any given point in time, that future use of an earth station will be limited to locations and frequencies that have been recently used, are currently in use, or are planned to be used in the imminent future.

Yet the Commission's proposed rule change would effectively impose such a limitation on the protected future use of a cable operator's or programmer's earth station. Unless the operator or programmer could demonstrate recent, current or imminent use of a location and frequency sought by an FS applicant, it could not successfully deny coordination to that applicant and would lose its ability to use the location and frequency in the future. The result would be the piecemeal disruption and erosion of (1) the ability of operators and programmers to continue to ensure uninterrupted, interference-free provision of their programming to cable subscribers; (2) the ability of cable programmers to use backhaul transmissions to obtain material – including live sports and news – for inclusion in their programming; and (3) the ability of cable operators to obtain and provide to their subscribers special event programming from all available sources.

II. REQUIRING FSS EARTH STATION OPERATORS THAT ACCEPT A PARTICULAR LEVEL OF INTERFERENCE FROM ONE FS STATION LICENSEE TO ACCEPT THAT LEVEL OF INTERFERENCE FROM ALL FUTURE COORDINATED FS STATIONS WOULD BE HARMFUL AND COUNTERPRODUCTIVE.

When FSS licensees coordinate with FS applicants, they do so on a case-by-case basis. This is not only because, as the Commission points out, “[e]very coordination request is likely to differ from earlier requests in some respects,”³ but also because the circumstances and conditions that may affect interference at a particular earth station site are likely to change over time. For

³ Notice, ¶ 73.

example, new potentially harmful RF interference sources may have been introduced into the environment around an earth station facility between the first coordination request and a subsequent request. And such new interference sources may limit the ability of an FSS licensee to accept as much potential interference from a new FS applicant as it may have been willing and able to accept from the first applicant.

The Commission now proposes to prohibit such case-by-case variation in the amount of interference that an FSS licensee is willing to accept in coordinating with multiple FS applicants. Specifically, under the proposed rule,

[i]f an earth station licensee accepts a particular interference analysis model that employs certain interference mitigating factors, such as terrain or building blockage, in order to successfully coordinate its station with a terrestrial fixed station, then it must accept the use of that same model in subsequent coordinations.⁴

In addition,

[i]f an earth station applicant for spectrum in the 3700-4200 MHz, 5925-6425 MHz, 6525-6875 MHz or 10.7-11.7 GHz band, during its coordination, accepts a level of interference that is recognized to be below accepted interference objectives along a set of azimuths and elevation angles on part of the spectrum for which it is applying, and therefore insufficient to clear the interference case, then the earth station licensee is not entitled to protection from interference from future terrestrial fixed service applicants on those same frequencies within that same set of azimuths and elevation angles.⁵

These changes would not achieve – in fact, they would undermine – the Commission’s goal of “promot[ing], during the coordination process, the most efficient use of this shared radio spectrum.”⁶ As noted above, it is not the case that merely because a licensee or applicant accepts

⁴ *Id.*, Appendix C: Proposed Rules, § 25.203(e)(2).

⁵ *Id.*, § 25.203(e)(3).

⁶ Notice, ¶ 78.

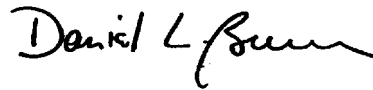
a certain level of interference in its first coordination, it will suffer no additional harm from accepting the same level of interference in subsequent coordinations. While the level of interference from each applicant may be the same, changed circumstances may increase the deleterious effects of such transmissions on the FSS licensee's use of the spectrum. And because it is impossible to predict such future changes in circumstances and environment, the most likely result of the proposed rule is that earth station licensees will be less likely to accept a certain level of interference in their initial coordinations than they would have accepted in the absence of the rule. To protect themselves, the least amount of interference that could cause problems in any conceivable case will likely become the maximum amount that an FSS licensee would accept for *all* cases.

In other words, removing the flexibility to accept different levels of interference from subsequent applicants will make coordination more difficult and sharing less likely to occur. It will, therefore, diminish rather than promote the most efficient use of potentially shared spectrum. Instead of agreeing to accept the maximum amount of interference that would be tolerable in each particular case, licensees will be reluctant to agree to any interference level that might conceivably be intolerable if accepted from any subsequent applicant. This would serve no public policy objective.

CONCLUSION

For the foregoing reasons, the Commission should reject its proposal to require FSS licensees to demonstrate recent, current or imminent "use" of any of its licensed spectrum that it wishes to protect against interference from an FS applicant. And it should reject its proposal to require FSS earth station operators that accept a particular level of interference from one FS station licensee to accept that level of interference from all future coordinated FS stations.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Daniel L. Brenner". The signature is fluid and cursive, with the first name "Daniel" being the most prominent.

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